

Scrapping breast cancer screening is the right move

- 18:11 02 May 2014 by [Anthony Miller](#)
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The Swiss medical board wants mass mammography checks scrapped. Time for a wider rethink of screening, says an epidemiologist

Mass breast-cancer screening using mammography – a type of x-ray that looks for abnormalities – is passionately advocated by many in the belief that women's lives will be saved. Many wealthy countries have adopted it as the key plank in efforts to reduce the toll of the disease. Therefore, when the Canadian National Breast Screening Study found no benefit from this type of programme there was a lot of concern.

The [latest analysis](#) of this study, which I directed, compared the incidence of breast cancer and deaths from the disease over a 25 year period in thousands of women aged 40 to 59. When the study began, whether women did or didn't undergo mammography screening was decided at random. We found there was no difference in mortality between the two groups, but overdiagnosis in the mammography group was significant.

As a result of this and other studies, the Swiss medical board took the pioneering step of [recommending that mass mammography screening there should be abolished](#).

Of course my colleagues and I weren't the first to conclude that the benefit of mammography is vanishingly small, and that the [detriments far outweigh the advantages](#). We confirmed that those detriments include labelling lesions detected by mammography as cancer even when they do not progress like cancer and are therefore not destined to kill. This is overdiagnosis, and it can lead to unnecessary treatment and harm to health.

The upshot is that the head start gained by earlier diagnosis using mammography – assumed to be four years on average – is in fact just one year. Given that breast cancer has a long natural course – nine years or more – this is a relatively unimportant gain and explains the lack of benefit seen in our study.

The women who took part and weren't receiving routine mammography did take other steps to detect breast cancer early. All were taught breast self-examination during their first check-up, and those aged 50 or over returned for four annual breast examinations during the period of the screening trial.

Many cancers were found as a result. We discovered that women who developed breast cancer fared better in survival terms if they practised self-examination well than if they did it poorly.

What are women to do now? First, they should emulate the participants in our study who didn't have mammography – that is, practise breast awareness, have annual breast examinations and ensure that if they detect an abnormality they are checked by a doctor.

Second, women should take steps to reduce their risk of developing breast cancer; steps that also reduce the risk of other diseases. These are to stay physically active, avoid weight gain – especially after the menopause – eat a diet low in fat and red meat and high in fruit and

vegetables, and start these steps as early in life as possible.

The responsibility for reducing the risk of breast cancer doesn't rest only on women, but also on those in charge of healthcare the world over.

In countries with modern healthcare systems, such as the UK, US, Canada and Australia, our results suggest the rationale for screening by mammography should be urgently reassessed. Education, early diagnosis and excellent clinical care should of course continue to be provided to ensure that as many breast cancers as possible are diagnosed at a small and treatable stage.

Mass use of mammography turns out to be a comfort blanket that offers no real gain. It is time to let it go.

Anthony Miller is director of the Canadian National Breast Screening Study and a professor emeritus in the Dalla Lana School of Public Health at the University of Toronto

Mammogram risks raise doubts about blanket screening

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The benefits of mammograms have been overblown and the harms underplayed, concludes a review of studies looking at breast cancer screening since the 1960s. Rather than blanket screening every woman every few years once they reach a certain age, the review recommends only screening those identified as being at high risk.

A mammogram is not much better than the [much maligned prostate cancer screening test \(PSA\)](#), which has been found to lead to many cases of [unnecessary and debilitating treatment](#), says the lead author of the review, Nancy Keating of the Brigham and Women's Hospital in Boston.

"The harms are real and the benefits very modest," says Keating. "For years, we knew that prostate screening was problematic, but we always thought we had a winner in mammography. Now we're finding it's not that different from the PSA."

In the US, women of any age have a 2.7 per cent risk of dying from breast cancer. The review found that, overall, a mammogram reduces this by about 19 per cent. However, the actual number of women saved per mammogram performed is very small. For every 10,000 women screened annually for 10 years, approximately five in their forties would be saved, 10 in their fifties and 42 in their sixties.

Unnecessary treatment

For women between 40 and 60 being screened annually for 10 years, approximately half will receive a false positive result, which will require them to return for more tests. More worryingly, for women who receive a diagnosis of cancer, about 1 in 5 will be overdiagnosed. This means they will be [treated even if their cancer would never do any them any harm](#) because it was indolent – slow growing and non-aggressive.

According to a [2009 report for the US Preventive Services Task Force](#), the risk of false alarms for the PSA test was 12 per cent and the risk of overdiagnosis 50 per cent.

In terms of breast cancer, says Keating, the key is to move away from the idea that all women over a certain age should have a mammogram, [as is the recommendation in the US](#), Canada and the UK. Instead, doctors should assess each woman individually, taking into account factors like her age, her family history and other genetic factors that either raise or reduce her likelihood of cancer. Only those at higher risk should be screened.

Aggressive or indolent

"We can clearly increase the benefits if we find a way to direct resources to those likely to benefit most, and avoid harm by doing less for those least likely to benefit," says [Laura Esserman](#) at the University of California, San Francisco. She says that several additional screening tests and procedures are becoming available that should make this possible, including genetic-susceptibility tests, breast density measurements, and methods of distinguishing indolent from aggressive cancers.

Claire Knight, health information manager at Cancer Research UK, points out that a recent [independent review of breast screening](#) commissioned by the charity estimated that breast screening saves about 1300 lives in the UK each year. But, for every life saved, three women are diagnosed with a cancer that would never have gone on to harm them.

"Future research could help distinguish between which breast cancers need to be treated and which can safely be left," says Knight. "A better understanding of the disease could also give a more specific picture of each woman's risk, enabling more accurate decisions about who should be screened."

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